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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/821,774	03/29/2001	Michael S. Dashefsky	VITLCOM.065A	5512

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EXAMINER

GRAHAM, CLEMENT B

ART UNIT PAPER NUMBER

3692

DATE MAILED: 10/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/821,774	DASHEFSKY ET AL.	
	Examiner	Art Unit	
	Clement B. Graham	3628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-19,21 and 22 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-19,21 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. Claims 4, and 20, has been cancelled and claims 1-3, 5-19, and 21-22, remained pending.
2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patent ability shall not be negated by the manner in which the invention was made.
3. Claims 1-3, 5-19, 21-22, are rejected under 35 U.S.C. 103(a) as being unpatentable over Conway US Patent No 5, 732, 401 in view of Nasburg US Patent No 5, 801, 943.

As per claims 1, Conway discloses a method of assessing patient flow through care units of a hospital ("i. e, caregiver") using a computer having a microprocessor comprising: collecting a set of hospital statistical data, assigning an hourly cost to each care unit for each patient.(Note abstract .(see column 10 lines 3-20 and column 2 line 34-45 and column 2 lines 24-67) building a model based upon the collected data and hourly cost.(see column 10 lines 3-20 and column 2 line 34-45 and column 2 lines 24-67).

Conway fail to explicitly teach simulating the flow of patients through the hospital using the model wherein the simulating step utilizes the collected data and using the model and the results of the simulating step to recommend hospital resources changes.

However Nasburg discloses the micromodel provides the traffic engineer with an intuitive and efficient method for describing or modeling complex traffic intersections and interchanges so that the kinematic behavior of all vehicles within that interchange can be predicted. Parameters provided as inputs by the traffic engineer are mapped directly to a set of differential equations governing the movement through time of all vehicles within the interchange. The result is a compact dynamic model usable in vehicle tracking applications and in graphic simulations, including real time simulations, of vehicles as they proceed through the interchange.(see column 8 lines 4-14).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Conway to include simulating the flow of

patients through the hospital using the model wherein the simulating step utilizes the collected data and using the model and the results of the simulating step to recommend hospital resources changes taught by Nasburg in order to simulate traffic patterns and provide resource recommendations.

As per claim 2, Conway discloses wherein each care unit is a hospital department. .(see column 10 lines 3-20 and column 2 line 34-45 and column 2 lines 24-67).

As per claim 3, Conway discloses further comprising using the model to estimate a cost savings that results from a purchase of patient monitoring equipment. .(see column 10 lines 3-20 and column 2 line 34-45 and column 2 lines 24-67).

As per claim 5, Conway discloses further comprising identifying a bottleneck in the flow of patients through the hospital. .(see column 10 lines 3-20 and column 2 line 34-45 and column 2 lines 24-67).

As per claim 6, Conway discloses where collecting data further comprises locating patients through a patient locating system. .(see column 10 lines 3-20 and column 2 line 34-45 and column 2 lines 24-67).

As per claim 7, Conway discloses wherein collecting data further comprises locating patients through a patient locating system. .(see column 10 lines 3-20 and column 2 line 34-45 and column 2 lines 24-67).

As per claim 8, Conway discloses wherein collecting real-time data comprises using a patient locating system. .(see column 10 lines 3-20 and column 2 line 34-45 and column 2 lines 24-67).

As per claim 9, Conway discloses wherein collecting real-time data comprises using an equipment locating system. .(see column 10 lines 3-20 and column 2 line 34-45 and column 2 lines 24-67).

As per claim 10, Conway discloses wherein collecting real-time data comprises using an Admission Discharge Transmission System. .(see column 10 lines 3-20 and column 2 line 34-45 and column 2 lines 24-67).

As per claim 11, Conway discloses wherein collecting real-time data comprises using a point of care system. .(see column 10 lines 3-20 and column 2 line 34-45 and column 2 lines 24-67).

As per claim 12, Conway discloses further comprising predicting a bottleneck in the flow of patients through the hospital through the use of the model.(see column 10 lines 3-20 and column 2 line 34-45 and column 2 lines 24-67).

As per claim 13, Conway discloses wherein the collected data comprises data regarding average patient length of stay in a care unit. (see column 10 lines 3-20 and column 2 line 34-45 and column 2 lines 24-67).

As per claim 14, Conway discloses further comprising determining alternative patient flow routes based upon optimizing efficiency of the hospital. .(see column 10 lines 3-20 and column 2 line 34-45 and column 2 lines 24-67).

As per claim 15, Conway discloses further comprising determining resource utilization based upon the model. (see column 10 lines 3-20 and column 2 line 34-45 and column 2 lines 24-67).

As per claim 16, Conway discloses a computer system for modeling patient flow through care units of a hospital comprising:
a collection module configured to accept a set of hospital statistical data.(see column 10 lines 3-20 and column 2 line 34-45 and column 2 lines 24-67) an assignment module configured to assign an hourly cost to each unit for each patient a model module configured to build a model of patients through the hospital .(see column 10 lines 3-20 and column 2 line 34-45 and column 2 lines 24-67).

Conway fail to explicitly teach a simulation module configured to simulate the flow of patients through the hospital wherein the simulation module utilizes the set of hospital statistical data a resource module configured to determine a resource utilization of the hospital by utilizing the model and the output of the simulation module.

However Nasburg discloses the micromodel provides the traffic engineer with an intuitive and efficient method for describing or modeling complex traffic intersections and interchanges so that the kinematic behavior of all vehicles within that interchange can be predicted. Parameters provided as inputs by the traffic engineer are mapped directly to a set of differential equations governing the movement through time of all vehicles within the interchange. The result is a compact dynamic model usable in

vehicle tracking applications and in graphic simulations, including real time simulations, of vehicles as they proceed through the interchange.(see column 8 lines 4-14).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Conway to include simulation module configured to simulate the flow of patients through the hospital wherein the simulation module utilizes the set of hospital statistical data a resource module configured to determine a resource utilization of the hospital by utilizing the model and the output of the simulation module taught by Nasburg in order to simulate traffic patterns and provide resource recommendations.

As per claim 17, Conway discloses further comprising an estimation module configured to estimate a cost savings that would result from a purchase of patient monitoring equipment. .(see column 10 lines 3-20 and column 2 line 34-45 and column 2 lines 24-67).

As per claim 18, Conway discloses further comprising an prediction module configured to predict a bottleneck in the flow of patients.(see column 10 lines 3-20 and column 2 line 34-45 and column 2 lines 24-67).

As per claim 19, Conway discloses further comprising an identification module configured to identify a bottleneck in the flow of patients.(see column 5 lines 5-65).

As per claim 21, Conway discloses wherein the collection module is further configured to collect real-time hospital statistics.(see column 10 lines 3-20 and column 2 line 34-45 and column 2 lines 24-67).

As per claim 22, Conway discloses wherein the care units include at least the following hospital departments: Admitting, Intensive Care Unit, Surgery and Discharge.(see column 10 lines 3-20 and column 2 line 34-45 and column 2 lines 24-67).

Conclusion

RESPONSE TO ARGUMENTS

4. Applicant's argument's filed 7/24/2006 has been fully considered but they are moot in view of new grounds of rejection.
5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clement B Graham whose telephone number is 703-305-1874. The examiner can normally be reached on 7am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sam Sough can be reached on 703-305-0505. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3597 for regular communications and 703-305-0040 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

CG

Sept 21, 2006


FRANTZY POINVIL
PRIMARY EXAMINER
Art 3628